

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-024003**Date Inspected:** 27-May-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** An Qing Xiang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Components**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector, Anand Upadhye was present during the times noted above for observations relative to the work being performed.

NDT

Outside Yard – OBG Trial Assembly

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted notification number 09260.

Magnetic Particle Testing (MT).

This QA inspector performed MT of approximately 15 % of the area previously tested and accepted by ZPMC Quality control personnel. This QA inspector generated MT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows:

SA6516-001-001/002.

SA6502-001-003/004.

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted notification number 09274.

Magnetic Particle Testing (MT).

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This QA inspector performed MT of approximately 15 % of the area previously tested and accepted by ZPMC Quality control personnel. This QA inspector generated MT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows:

SEG3013N-150, 170, 195, 200, 205.

SEG3013N-084, 086, 088.

SEG3013N-133, 134, 138, 139, 143, 144, 148, 149, 153, 154, 158, 159, 163, 164, 168, 169, 173, 174, 180, 181, 183, 184, 188, 189, 193, 194, 198, 199.

### WELDING

This QA Inspector observed the following work in progress:

#### Outside Yard – OBG Trial Assembly

This QA Inspector observed ZPMC qualified welding personnel identified as 067764 perform repair welding by Shielded Metal Arc Welding (SMAW), on Floor beam to Sub Assembly part SA3416C weld at panel point 128.7 of OBG Segment 14W. Weld joint is identified as SEG3020B-029. ZPMC Quality Control (QC) Inspector identified as Zhu Lin was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-345-SMAW-4G (4F)-FCM-Repair-1, which is used as per Welding repair report B-WR21100. See attached picture.

This QA Inspector observed ZPMC qualified welding personnel identified as 067572 perform welding by Shielded Metal Arc Welding (SMAW), on Floor beam I Rib stiffener to Sub Assembly part SA3416A weld at panel point 128.3 of OBG Segment 14W. Weld joint is identified as SEG3020E-076. ZPMC Quality Control (QC) Inspector identified as Zhu Lin was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-P-2214-Tc-U4b-FCM-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 069118 perform welding by Shielded Metal Arc Welding (SMAW), on Floor beam I Rib stiffener to Sub Assembly part SA3416A weld at panel point 128.3 of OBG Segment 14W. Weld joint is identified as SEG3020E-091. ZPMC Quality Control (QC) Inspector identified as Zhu Lin was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-P-2214-Tc-U4b-FCM-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 067765 perform welding by Shielded Metal Arc Welding (SMAW), on Floor beam I Rib stiffener to Sub Assembly part SA3416A weld at panel point 128.3 of OBG Segment 14W. Weld joint is identified as SEG3020E-096. ZPMC Quality Control (QC) Inspector identified as Zhu Lin was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-P-2214-Tc-U4b-FCM-1.

This QA Inspector observed ABF qualified NDT personnel perform Magnetic Particle Testing on Bottom plate I Rib Stiffeners to Floor beam welds, Floor beam to Bottom plate welds, Fit Lugs to Floor beam welds and Fit Lugs

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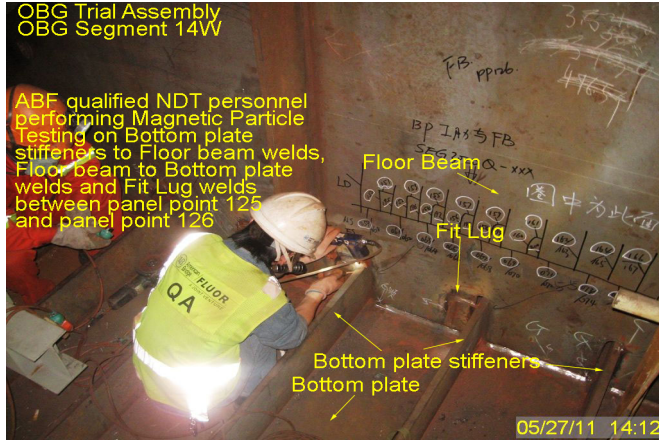
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to Bottom plate I Rib stiffener welds between panel points PP125 through PP126. See attached picture.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



## Summary of Conversations:

No significant conversations were reported on this date.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, phone: 15000422372 , who represents the Office of Structural Materials for your project.

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**Inspected By:** Upadhye, Anand

Quality Assurance Inspector

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**Reviewed By:** Clifford, William

QA Reviewer